

CLAIM AMENDMENTS

1 - 14. (canceled)

1 15. (currently amended) A pressure-relief valve for an
2 oil-filled transformer or tap changer having a casing, the valve
3 comprising:

4 a flange formed with a throughgoing port;
5 means for securing the flange to the casing;

6 a seal surrounding the port;

7 a spring plate spaced outward from the port;

8 a rigid post secured directly to the spring plate and to
9 the flange and fixing the spring plate relative to the flange;

10 a valve body between the spring plate and the flange and
11 displaceable between a closed position engaging the seal and
12 closing the port and an open position spaced outward from the port
13 and permitting flow out of the casing through the port;

14 a spring having an outer end bearing against the spring
15 plate and an inner end bearing against the valve body to urge the
16 valve body into the closed position, whereby when pressure in the
17 casing exceeds a predetermined limit the valve body is pushed out
18 and fluid in the casing can pass into the housing and thence out of
19 the housing;

20 a cup-shaped housing engaged over and covering the valve
21 body, spring plate, post, and spring, the housing having an end

22 wall spaced from the flange and a side wall projecting from the end
23 wall toward the casing and forming a rim, the spring plate
24 subdividing an interior of the housing into an inner compartment
25 holding the valve body and spring and into which the port opens and
26 a separate outer compartment between the spring plate and the end
27 wall, the side wall being formed at the inner compartment with a
28 throughgoing vent opening, whereby the spring plate blocks fluid
29 flow from the inner compartment to the outer compartment;

30 means for removably securing the rim directly to the
31 flange, whereby removal of the housing exposes the spring plate,
32 post, valve body, and spring;

33 a rigid feedthrough plate fixed to the flange and
34 extending to the outer compartment, the housing side wall being
35 fitted around the feedthrough plate; and

36 a cable extending from the switch inside the outer
37 compartment through the feedthrough plate to outside the
38 compartment.

16. (canceled)

1 17. (previously presented) The pressure-relief valve
2 defined in claim 15, further comprising:

3 an indicating member fixed on the valve body and
4 projecting through the spring plate into the outer compartment; and

5 a switch in the outer compartment actuatable by the
6 indicating member.

1 18. (previously presented) The pressure-relief valve
2 defined in claim 17 wherein the outer compartment is above the
3 inner compartment.

19. (canceled)

1 20. (previously presented) The pressure-relief valve
2 defined in claim 15, further comprising
3 screws securing the housing to the feedthrough plate.

1 21. (previously presented) The pressure-relief valve
2 defined in claim 15 wherein the vent opening is formed in the
3 housing side wall opposite the feedthrough plate.

1 22. (previously presented) The pressure-relief valve
2 defined in claim 17, further comprising
3 at least one stud on the spring plate, the switch being
4 mounted on the stud.

1 23. (previously presented) The pressure-relief valve
2 defined in claim 17, wherein the indicating member is a pin
3 projecting through the end wall of the housing.

4 24. (previously presented) The pressure-relief valve
5 defined in claim 23 wherein the pin has an outer end provided with
6 a mushroom-shaped head.

1 25. (previously presented) The pressure-relief valve
2 defined in claim 15, further comprising
3 at least one pin displaceable transversely of the side
4 wall in the flange between an outer position projecting from the
5 flange through a complementary hole in the housing side wall and an
6 inner position recessed in the flange; and
7 a respective spring braced between the pin and the flange
8 and urging the pin into the outer position.

1 26. (previously presented) The pressure-relief valve
2 defined in claim 25 wherein the pin has a rounded end.

1 27. (previously presented) The pressure-relief valve
2 defined in claim 15 wherein the flange is formed with a threaded
3 bore having an inner end forming a seat and with a passage
4 extending between the seat and an inner surface of the flange in
5 the port, the valve further comprising

6 a threaded valve member screwed into the threaded bore
7 and being screwable between an inner position engaging the seat and
8 blocking the passage and an outer position disengaged from the seat
9 and unblocking the passage.

10 28. (previously presented) The pressure-relief valve
11 defined in claim 27 wherein the threaded valve member has a tip
12 engageable with the seat and a bore having an outer end open
13 outside the valve and an inner end open adjacent the tip, whereby,
14 when the threaded valve member is screwed back off the seat, fluid
15 can flow from the passage into the bore.

1 29. (previously presented) The pressure-relief valve
2 defined in claim 15 wherein the vent opening is an array of small-
3 diameter holes.

30. (canceled)

1 31. (currently amended) A pressure-relief valve for an
2 oil-filled transformer or tap changer having a casing, the valve
3 comprising:

4 a flange formed with a throughgoing port;
5 means for securing the flange to the casing;
6 a seal surrounding the port;
7 a spring plate spaced outward from the port;
8 a rigid post secured directly to the spring plate and to
9 the flange and fixing the spring plate relative to the flange;

10 a valve body between the spring plate and the flange and
11 displaceable between a closed position engaging the seal and
12 closing the port and an open position spaced outward from the port
13 and permitting flow out of the casing through the port;

14 a spring having an outer end bearing against the spring
15 plate and an inner end bearing against the valve body to urge the
16 valve body into the closed position, whereby when pressure in the
17 casing exceeds a predetermined limit the valve body is pushed out
18 and fluid in the casing can pass into the housing and thence out of
19 the housing;

20 a cup-shaped housing engaged over and covering the valve
21 body, spring plate, post, and spring, the housing having an end
22 wall spaced from the flange and a side wall projecting from the end
23 wall toward the casing and forming a rim, the housing being formed
24 with a throughgoing and horizontally extending vent slot;

25 a rigid feedthrough plate fixed to the flange between the
26 end wall and the spring plate, the housing side wall being fitted
27 around the feedthrough plate;

28 means for removably securing the rim directly to the
29 flange, whereby removal of the housing exposes the spring plate,
30 post, valve body, and spring; and

31 a shield hood above the slot.

1 32. (previously presented) The pressure-relief valve
2 defined in claim 15 wherein the seal has a beveled annular seal
3 face engageable with the valve body.

33. (canceled)